return for several months. It is suggested that the stimulation of the "freshening" lasted for several hours, the sensation being referred bv the patient to the original terminals of the fibeis. In certain of the experiments nerves were cut and the upper end covered with a cap so as to prevent the peripheral end from uniting with the central. After 100 or 150 days electrical stimulus found no response under anesthesia even to strong Faradic currents, and the microscope discovered no trace of regeneration. Another significant experiment consisted in dividing and then suturing together a large nerve in monkeys and cats. Upon exposing this nerve after function had been restored it was found united and excitable both above and below the union. A piece of nerve removed an inch below the point of original division was found to consist of fine new fibers with no trace of degenerated products. After ten days the animal was killed and the peripheral portion of the nerve both above and below the second incision was found quite unexcitable and exhibiting Wallerian degeneration. The authors have concluded from some evidence which they offer that the new fibers are less perfectly developed farther from the original point of section. JELLIFFE.

POISONING BY METHYLIC ALCOHOL. C. Ströhmberg, (St. Petersburg med. Woch., Nos. 39 and 40).

During the temporary suspension of the sale of vodka in Dorpat while mobilization was in progress 18 cases of poisoning, 15 of them fatal, occurred from the drinking of a popular vulnerary, also used internally, known as "Kuntzen's Balsam." Although none of the preparation used in these cases could be gotten for analysis, there is no doubt that the poisoning resulted from the substitution of methylated spirit for rectified in the formula of this "balsam." Two cases are reported typical of acute amblyopia due to retrobulbar neuritis. Of the drugs which may produce retrobulbar neuritis methylic alcohol is the most powerful, and in the cases under consideration the other drugs were excluded as possible factors by the small quantity of the preparation ingested, and by certain definite differences in the course of the intoxication. As the percentage of methylic alcohol in the balsam was not known, the fatal dose could not be determined, but if, as seems probable, the percentage was the same as that of ethylic alcohol called for by the formula, fatal results must follow a dose exceeding 35 gm., and serious results may be produced by as little as 7½ gm. The author formulates the symptomology of methylic alcohol poisoning as follows: Immediately after ingestion a bitter, burning taste which may extend to the pharynx and esophagus and be felt behind the sternum; great depression and anxiety; apathy; heavy, aching limbs, headache and vertigo. At first the patient can pull himself together and overcome the weariness, somnolence and tendency to shiver. This may be in slight cases the turning point toward recovery, but in serious cases the shivering may give place to pronounced rigors, and the somnolence to deep, prolonged sleep, frequently interrupted by headache or pain in the limbs, possibly accompanied by tonic spasms. Later there are nausea, vomiting, abdominal pain, tenderness and dyspnea. In most cases a dense white mist before the eyes was complained of, and in many cases amaurosis became complete in from two to six days, lasting from a few days to a week. Ocular pain is infrequent. Color perception returns late, if at all, or incompletely. Death occurred in 8 cases within 24 hours, and in 5 within 48 hours. One man recovered after he had apparently reached a moribund stage. Thirteen necropsies gave similar results, namely, a post-mortem redness of the skin, less bright than in carbon dioxide poisoning; marked rigor mortis, affecting the erectores pilorum; muscles unnaturally red; blood cherry colored; lungs hyperemic and edematous, as were also the liver, spleen and kidneys; the vesical mucosa usually congested; usually marked hyperemia of brain and meninges. The treatment recommended is irrigation of the stomach, hypodermic injections of pilocarpine, vapor baths and packs, and copious warm packs.

JELLIFFE.

LOCALIZATION OF THE GREAT BRAIN: THE FRONTAL LOBE. C. von Monakow (Ergebnisse der Physiologie, III., 2, 1904).

The author sums up the present knowledge of this subject pretty thoroughly, going over the work of Flechsig, Broadbent, Hitzig, Bianchi and Ferrier. Broadbent distinguished between the sense areas of the cortex and those other cortical fields where the percept was elaborated into the concept, between the areas in which terminate the projection fibers from the subcortical portion of the brain and those without such fibers. Flechsig carried this further in his myelination studies, and made the distinction between projection and association centers; that is, between the primary centers for the representation of sensation and motion and the centers where these primary sensations were fused, to the latter of which he gives the name of "thought organ." His later researches, and those of other observers resulted in dividing the myelogenic fields into three groups, the first consisting of the projection center, early furnished with fibers, that is, the primary region; the second consisting of the association centers where the fibers appear later, that is, the terminal region, and the third an intermediary center. The second group is again divided into temporal and parietal, frontal and insular. If destruction occurs on both sides the intelligence is defective. The tempero-parietal centers deal with the recognition of spoken language and of the nature of objects, implying when united positive knowledge and imaginative capacity. The percepts of articulated language and those of hearing are united in the insula and in the prefrontal area are gathered all the impressions of conscious bodily life from which spring the acts of will. Hitzig, Bianchi and Ferrier consider the frontal lobe the organ of higher psychical activity, but our knowledge of localization even of the simpler operations is too slight as yet to justify much categorical assertion. To be sure, the area of frontal cortex in man is much larger in proportion than in the lower apes and beasts of prey, but on the other hand, in the horse and the goat it is nearly equal proportionately to that of man. Again, destruction, especially when bilateral, is often followed by changes in character and alienation of mind, and experimental removal in animals confirms this evidence; but on the other hand, bilateral frontal lesions have occurred without mental defect, and such defect has been associated with other lesions. Consequently, although the weight of evidence bears toward the special relation of the frontal cortex to psychical events, that fact cannot be said to be demonstrated. Indeed, we encounter difficulties in attempting to localize even the simplest mental operation, since the mere perceptive act implies components which are not physiologically defined or analyzed with sufficient fulness.

JELLIFFE.

NEURO-FIBRILS, AS DEMONSTRATED BY CAJAL. Azoulay (La Presse Médicale, January, 1905).

In this article Dr. Azoulay takes up the neuro-fibrils in leeches. The results of experiments with these lower forms of life support, as do those in the higher forms, the neurone theory of the nervous system. In the cells of the nerve ganglia the neuro-fibrils form one or two networks between the cell membrane and the nucleus. From this network both motor fibrils and fibrils of association pass out along the single cell process into the interior of the ganglion, sending off collaterals ending in the plexiform substance of the ganglia, as do also shorter processes from the cellular reticulum. The independence of the neurones is distinct, as in the higher animals, none of the fibrils anastomosing with each other outside the cells.

JELLIFFE.